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EXAMINER

YOUNG, JANELLE N

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 12/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/521,490

Applicant(s)

SAITOU ET AL.

Examiner

Janelle N. Young

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1, 4-5, and 10-11 have been considered but are moot in view of the new ground(s) of rejection.

What Sawamura does not explicitly teach is the a second antenna provided in the second/lower casing and switching between dipole and monopole.

However Chatzipetros teaches a first and second portions and of the second antenna are inductively coupled together between the flap and the substrate. Diversity is maintained with the flap open or closed as well as with the flap removed from the handset (Fig. 1 and Abstract of Chatzipetros).

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate the two antennae for a communication device , as taught by Chatzipetros, in the mobile wireless terminal of Sawamura, because Sawamura already teaches to antennae switching (dipole antenna (Fig. 6: 80 & 82) together with the first antenna element (Abstract; Page 1, Para 0001, 0003-0007, & 0009; Page 2, Para 0013 & 0016; Page 3, Para 0032-0033 & 0024-0026; Page 5, Para 0071 & 0079; Page 8, Para 0117; and Page 9, Para 0128of Sawamura).

The motivation of this combination would maintain a stable antenna characteristic and communication quality if it is placed on a table or if the fingers of a user cover a top of backside of the device, as taught by Sawamura in Abstract, because there is a need for an antenna that can be incorporated into a communication device that provides an

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improved interconnect between the flap and the transceiver in order to reduce assembly time and cost in the factory. The incorporation of antennae with the mobile terminal should further provide operation in both an opened and closed flap position.

Additionally, a handset not having a flap and providing diversity would be of benefit to the user who does not desire a flap (Col. 1, lines 41-48 of Chatzipetros).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawamura et al. (US Patent 2003/0148784) and further in view of Chatzipetros (US Patent 5554996).

As for claim 1, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device (Abstract; Page 3, Para 0032-0033; Page 4, Para 0068; Page 5, Para 72; Page 6, Para 0097; Page 7, Para 0099, & 0107-0109; Page 8, Para 0113, 0115-0116, & 0122-0123; and Page 9, Para.0127 of Sawamura), comprising:

a hinge section (Fig. 24-28:38 and Fig. 30-31:38 of Sawamura); which reads on claimed connection portion, connecting the first casing to the second casing are

rotatably connected; which reads on claimed freely rotate (Page 6, Para 0097; Page 7, Para 0100, 0107, & 0109 0111; and Page 8, Para 0115 of Sawamura);

a first antenna element (Fig. 1:65; Fig. 15B:13; and Fig. 27:47 of Sawamura), provided in the first casing (Abstract; Page 1, Para 0001; Page 3, Para 0032-0033; Page 5, Para 0071; Page 8, Para 0117; and Page 9, Para 0128 of Sawamura);

a conductor element (Fig. 1:66 and Fig. 17:22a & b of Sawamura), provided in the second casing to form a dipole antenna (Fig. 6: 80 & 82 of Sawamura) together with the first antenna element (Abstract; Page 1, Para 0001, 0003-0007, & 0009; Page 2, Para 0013 & 0016; Page 3, Para 0032-0033 & 0024-0026; Page 5, Para 0071 & 0079; Page 8, Para 0117; and Page 9, Para 0128 of Sawamura); and

a feeding pin/section (Fig. 1:69; Fig 9A & B99; Fig. 10b:104; Fig. 15B:18 & 19; Fig. 16-17:18 & 19; Fig. 18B:18 & 19; Fig. 23B:50 & 51; 29:50 & 51 of Sawamura); which reads on claimed feeding portion, having one end electrically connected to the first antenna element and the other end electrically connected to the conductor element (Page 1, Para 0003 & 0007; Page 2, Para 0014, 0019 & 0024-0026; Page 5, Para 0071, 0075-0076, 0078, & 0083; Page 7, Para 0099; and Page 8, Para 0113, 0117-0118 & 0120-0121 of Sawamura).

What Sawamura does not explicitly teach is the a second antenna provided in the second/lower casing and switching between dipole and monopole.

However Chatzipetros teaches a first and second portions and of the second antenna are inductively coupled together between the flap and the substrate. Diversity is maintained with the flap open or closed as well as with the flap removed from the

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handset (Fig. 1 and Abstract of Chatzipetros) and a first upper casing (Fig. 1:108 of Chatzipetros); which reads on claimed first casing; and a second lower casing (Fig. 1:110 of Chatzipetros); which reads on claimed second casing (Abstract; Col. 1, line 66-Col. 2, line 61; Col. 3, lines 13-42; Col. Col. 3, line 66-Col. 4, line 14; and Col. 4, lines 29-40 of Chatzipetros);

It would have been obvious to one of ordinary skill of the art at the time the invention was made to incorporate the two antennae for a communication device , as taught by Chatzipetros, in the mobile wireless terminal of Sawamura, because Sawamura already teaches to antennae switching (dipole antenna (Fig. 6: 80 & 82) together with the first antenna element (Abstract; Page 1, Para 0001, 0003-0007, & 0009; Page 2, Para 0013 & 0016; Page 3, Para 0032-0033 & 0024-0026; Page 5, Para 0071 & 0079; Page 8, Para 0117; and Page 9, Para 0128 of Sawamura).

The motivation of this combination would maintain a stable antenna characteristic and communication quality if it is placed on a table or if the fingers of a user cover a top of backside of the device, as taught by Sawamura in Abstract, because there is a need for an antenna that can be incorporated into a communication device that provides an improved interconnect between the flap and the transceiver in order to reduce assembly time and cost in the factory. The incorporation of antennae with the mobile terminal should further provide operation in both an opened and closed flap position. Additionally, a handset not having a flap and providing diversity would be of benefit to the user who does not desire a flap (Col. 1, lines 41-48 of Chatzipetros).

As for claims 2 & 3, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, wherein a plurality of first antenna elements are provided in the first casing; and the portable radio device further comprising an antenna-switching detection means (Fig. 27-28:57 & 58 and Fig. 30:61 of Sawamura); which reads on claimed switching portion which switches the plurality of first antenna elements so as to connect and/or to electrically connect to the feeding portion (Page 8, Para 0113-0121 and Page 9, Para 0124-0129 of Sawamura) and/or the plurality of the first antenna elements are electrically connected to the conductor element, respectively portion (Page 2, Para 0014 and Page 9, Para 0124-0129 of Sawamura).

As for claims 4 & 5, Chatzipetros teaches a portable wireless communication terminal device which reads on claimed portable radio device, further comprising a half-wavelength element being electrically connected between at least one of the plurality of the first antenna elements and the switching portion; wherein the switching portion selectively switches the plurality of the first antenna elements and the plurality of the half-wavelength elements so as to connect to the feeding portion (Col. 3, line 5-Col. 4, line 55 of Chatzipetros).

As for claim 6, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising a plurality of impedance matching portions (Fig. 8A:89 of Sawamura)

respectively corresponding to the plurality of the first antenna elements (Page 1, Para 0007; Page 2, Para 0019-0020 & 0022; Page 5, Para 0079; and Page 6, Para 0085 of Sawamura).

As for claim 7, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising:

the antenna-switching detection means (Fig 23 A&B and Fig. 28-29:57 & 58 of Sawamura) detects an antenna-switching request signal corresponding to opening or closing condition of the first upper and second lower casings; and the contact points (Fig. 28-29:57a & b and Fig. 28-29:58a & b of Sawamura); which reads on claimed control portion, controlling the switching portion in accordance with the detected result of the casing opening and closing state detecting portion (Page 9, Para 0128-0130 in respect to Page 7-8, Para 0115-0126 of Sawamura).

As for claim 8, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising a control portion, determining a receiving level of a transmission/reception circuit(RF circuit) (Fig. 16:20 and Fig. 28-29:59 of Sawamura); which reads on claimed radio circuit portion, to control the switching portion so as to raise the receiving level (Page 5, Para 0075-0076 and Para 8, Para 0118-0121 of Sawamura).

As for claim 9, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, wherein the antenna element and the conductor element (Fig. 1-2:66 and Fig. 16:28 of Sawamura) are respectively formed in planar; which reads on claimed plate shapes, along the surface of the first casing and the second casing (Page 1, Para 0003-0007, 0009, & 0013; and Page 8, Para 0113 of Sawamura).

As for claim 10, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising:

a circuit board (Fig. 15:10; Fig. 12:113; and Fig 23B: 43 & 45 of Sawamura), provided in the second casing and having a transmission/reception circuit (RF circuit) (Fig. 16:20 and Fig. 28-29:59 of Sawamura); which reads on claimed radio circuit, (Abstract; Page 1, Para 0011 in respect to Page 2, Para 0015; Page 3, Para 0027-0028, 0032 Page 7, Para 0099; and Page 8, Para 0113 of Sawamura);

wherein the conductor element is formed in a ground pattern (Fig. 17:67) which is formed on the circuit board provided in the second casing (Page 1-2, Para 0012 and Page 5, Para 0078 of Sawamura)

wherein a ground of the radio circuit portion is electrically connected to the ground pattern (Page 1, Para 0012-0014; Page 5, Para 0079; and Page 6, Para 0086-0088, & 0092 of Sawamura); and

wherein the feeding portion is provided in the radio circuit portion (Page 5, Para 0075-0076; Page 8, Para 0118 & 0120-0121 of Sawamura).

As for claim 11, Chatzipetros teaches a portable wireless communication terminal device which reads on claimed portable radio device, further comprising:

a second antenna element, provided in the second casing near the connection portion (Fig 1 of Chatzipetros);

the antenna-switching detection means detects an antenna-switching request signal corresponding to opening or closing condition of the first upper and second lower casings; and the control portion, controlling the switching portion in accordance with the detected result of the casing opening and closing state detecting portion; and a switching portion, selecting and switching any one of the first antenna element and the second antenna element to a connection to a signal processing portion for performing a signal process in accordance with the detected result of the casing opening and closing state detecting portion; and wherein when the first casing and the second casing are opened, the first antenna element and the conductor element form the dipole antenna; and wherein when the first casing and the second casing are closed, the second antenna element and the conductor element form a mono-pole antenna (Abstract; Col. 1, line 66-Col. 2, line 61; Col. 3, lines 13-42; Col. Col. 3, line 66-Col. 4, line 14; and Col. 4, lines 29-40 of Chatzipetros .

As for claim 12, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, wherein when

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the first casing and the second casing are opened, the switching portion selects the first antenna element; and wherein when the first casing and the second casing are closed, the switching portion selects the second antenna element (Page 9, Para 0128-0130 in respect to Page 7-8, Para 0115-0126 of Sawamura).

As for claim 13, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising:

a second antenna element provided in the second casing near the connection portion (Abstract; Page 1, Para 0001; Page 3, Para 0032-0034; Page 5, Para 0070-0081; Page 6, Para 0088-0096; Page 7, Para 0099-0111; Page 8, Para 0114-0123; and Page 9, Para 0126 & 0128 of Sawamura);

a receiving field intensity measuring portion, measuring the receiving field intensity of a signal received by the first antenna element or the second antenna element; and a switching portion, selecting and switching the antenna element having a higher receiving field intensity to a connection to a signal processing portion for performing a signal process in accordance with the measured result of the receiving field intensity measuring portion (Page 5, Para 0075-0076; Page 8, Para 0114-0120; and Page 9, Para 0128-0130 of Sawamura),

wherein the first antenna element has a first feeding point for electrically connecting to the conductor element; wherein the second antenna element has second feeding point for electrically connecting to the conductor element; and wherein the first

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feeding point and the second feeding point are provided at the diagonal positions of opposed sides when the first casing and the second casing are opened (Page 1, Para 0003 & 0007; Page 2, Para 0014, 0019 & 0024-0026; Page 5, Para 0071, 0075-0076, 0078, & 0083; Page 7, Para 0099; and Page 8, Para 0113, 0117-0118 & 0120-0121 of Sawamura).

As for claim 14, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising:

a first matching portion, matching the impedance of the first antenna element to a prescribed value; and a second matching portion, matching the impedance of the second antenna element to a prescribed value (Page 1, Para 0007; Page 2, Para 0019-0020 & 0022; Page 5, Para 0079; and Page 6, Para 0085 of Sawamura).

As for claim 15, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising:

a circuit board, provided in the second casing (Abstract; Page 1, Para 0011 in respect to Page 2, Para 0015; and Page 3, Para 0027-0028, 0032 Page 7, Para 0099 and Page 8, Para 0113 of Sawamura);

a plurality of feeding portions, feeding electric current to the antenna element and being separated to each other (Page 1, Para 0003 & 0007; Page 2, Para 0014, 0019 &

0024-0026; Page 5, Para 0071, 0075-0076, 0078, & 0083; Page 7, Para 0099; and Page 8, Para 0113, 0117-0118 & 0120-0121 of Sawamura);

a radio circuit, disposed in the circuit board (Abstract; Page 1, Para 0011-0014 in respect to Page 2, Para 0015; Page 3, Para 0027-0028, 0032; Page 7, Para 0099; and Page 8, Para 0113 in correspondence to Page 1, Para 0012-0014; Page 5, Para 0079; and Page 6, Para 0086-0088, & 0092 of Sawamura); and

a switching portion, provided between the plurality of feeding portions and the radio circuit and selecting any one of the plurality of the feeding portions to connect the radio circuit (Page 9, Para 0128-0130 in respect to Page 7-8, Para 0115-0126 of Sawamura).

As for claim 16, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising:

a circuit board, provided in the second casing (Abstract; Page 1, Para 0011 in respect to Page 2, Para 0015; and Page 3, Para 0027-0028, 0032 Page 7, Para 0099 and Page 8, Para 0113 of Sawamura);

a radio circuit, disposed in the circuit board and electrically connected to the feeding portion (Abstract; Page 1, Para 0011-0014 in respect to Page 2, Para 0015; Page 3, Para 0027-0028, 0032; Page 7, Para 0099; and Page 8, Para 0113 in correspondence to Page 1, Para 0012-0014; Page 5, Para 0079; and Page 6, Para 0086-0088, & 0092 of Sawamura);

a ground portion, spaced from the feeding portion and connecting the antenna element to the circuit board (Page 1, Para 0012-0014; Page 5, Para 0079; and Page 6, Para 0086-0088, & 0092 of Sawamura); and

a switching portion, switching whether the ground portion is connected to the circuit board or the ground portion and the circuit board are opened (Page 9, Para 0128-0130 in respect to Page 7-8, Para 0115-0126 of Sawamura).

As for claim 17, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, wherein a plurality of ground portions are provided; and

wherein the ground portions are disposed so as to be spaced apart in the end part of the antenna element connected to the second casing (Page 1, Para 0003-0006 & 0012; Page 2, Para 0013 & 0020; and Page 6, Para 0092 of Sawamura).

As for claim 18, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, wherein the switching portion switches the ground portions respectively (Page 9, Para 0128-0130 in respect to Page 7-8, Para 0115-0126 of Sawamura).

As for claims 19-20, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, the connection portion has an electric conductivity; and wherein the ground portion and/or the feeding

portion is electrically connected to the antenna element through the connection portion (Page 2, Para 0014; Page 3, Para 0034; Page 5, Para 0080; and Page 6, Para 0086-0092 of Sawamura).

As for claim 21, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, further comprising: a control circuit, controlling the switching portion in accordance with the level of a receiving signal received by the radio circuit (Page 9, Para 0128-0130 in respect to Page 7-8, Para 0115-0126 in correspondence with Page 5, Para 0075-0076; Page 8, Para 0114-0120; and Page 9, Para 0128-0130 of Sawamura).

As for claim 22, Sawamura et al. teaches a portable wireless communication terminal device (Fig. 15:1; Fig. 24-24:35; Fig. 25-26:53; Fig. 27-28:56; Fig. 30:60; and Fig. 31:62 of Sawamura) which reads on claimed portable radio device, wherein the first antenna element is an electric conductive frame forming a part of the first casing (Page 2, Para 0014; Page 3, Para 0034; Page 5, Para 0080; and Page 6, Para 0086-0092 of Sawamura).

Conclusion

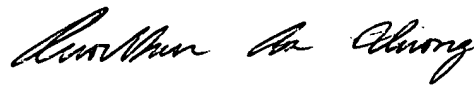
1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle N. Young whose telephone number is (571) 272-2836. The examiner can normally be reached on Monday through Friday: 8:30 am through 4:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JNY
June 22, 2006



12/11/06

QUOCHIEN B. VUONG
PRIMARY EXAMINER